#### Gas Processors Association

#### Natural Gas Interchangeability Conference

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Joel D. Moxley
GPA Executive and Finance Committee
www.gasprocessors.com

# Gas Processing Overview

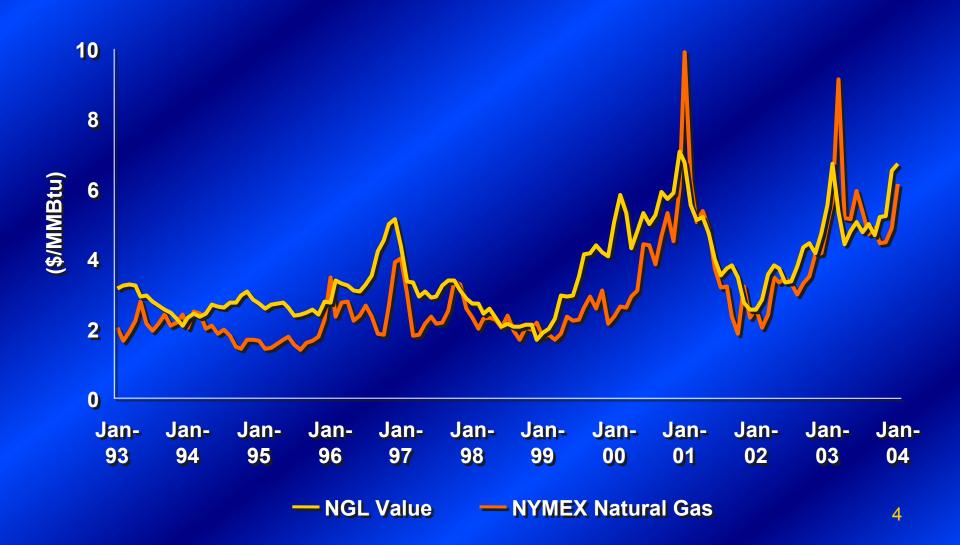
#### > What is the GPA?

- trade organization of 104 member companies that produce over 90% of U.S. natural gas liquids (NGLs)
- organized in 1921 to create standards for natural gasoline extracted from pipeline gas
- a strong history of involvement in safety, environmental & technical issues
- Evolution of Gas Processing
  - Gasoline plants, 1920's
  - Lean oil absorption plants, 1940-1960's
  - Cryogenic plants, 1960's-present
- > Approximately 80% of U.S. gas is processed

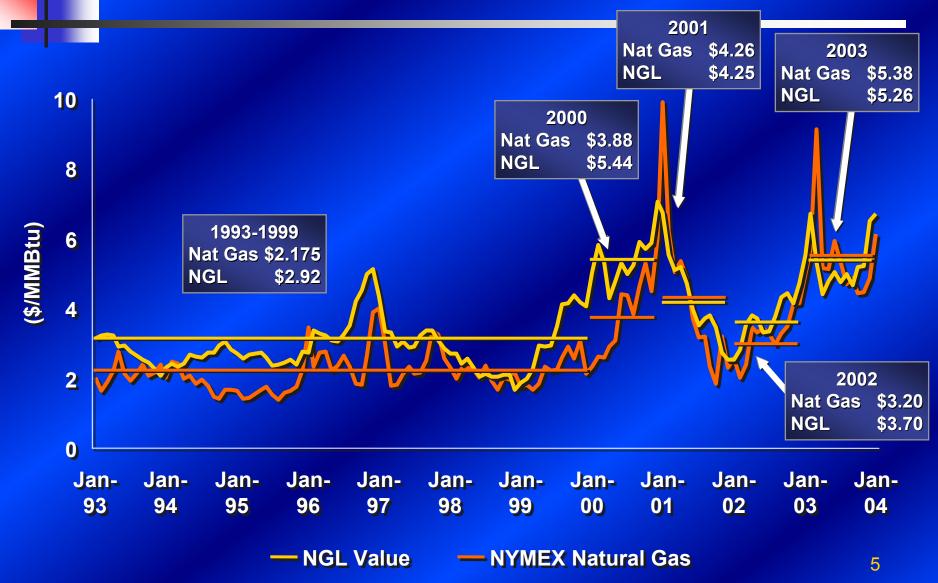
# Gas Processing Overview

- Where do NGLs go?
  - Natural Gasoline → refinery & petrochemical feedstock
  - Butane → refinery feedstock
  - Propane → petrochemical feedstock, heat fuel
  - Ethane → petrochemical feedstock
- Processing includes removing impurities such as water, carbon dioxide & hydrogen sulfide
- Historical economic premise: NGLs extracted are worth more than gas; "value added"
- Today's economic reality: The thermal value of the residue gas is the highest value product from processing

# Gas Processing Economics



# **Gas Processing Economics**



#### **Processing Considerations**

- > All gas going through plant incurs costs
- > Can't do "selective" processing
- ➤ Plants have a limited range of operation
- All residue gas from plant will be of the same quality (plts with multiple outlets)
- Processing beyond minimum specifications economically benefits downstream receipts & deliveries

#### **Future Outlook**

- Expect continued volatility in NGL and natural gas commodity markets
- > Gas processors can provide:
  - Feedstock for petrochemical & refining
  - Dew point control for domestic gas
  - Btu reduction for LNG
- Need consistent quality standards for pipeline gas to allow for good operating and investment decisions

## Acknowledgements

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